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PUBLIC HEALTH

Smokers' Lung Cancer Low

A study of white South Africans, long recognized as the heaviest cigarette smokers in the world, establishes they have a lower lung cancer mortality than others who smoke less.

THE GROUP of persons long recognized as the heaviest cigarette smokers in the world have been found to have a significantly lower incidence of lung cancer than the British, whose incidence is extremely high.

The white South African has long been the highest consumer of packaged cigarettes in the world, Dr. Geoffrey Dean of Provincial Hospital, Port Elizabeth, South Africa, says.

He found the average white South African male 35 years of age or older smoked approximately 24 cigarettes per day. This includes not only city but rural smokers, he reports in the *British Medical Journal* (Oct. 31).

Dr. Dean compared this group's mortality rate from lung cancer with that of a group of British immigrants. He found that deaths due to lung cancer among British immigrants between the ages of 45 and 64 were 44% higher than among white native-born South African males of the same age range.

The investigator then asked himself if the greater mortality among the immigrants could be due to differences in the tobaccos used in cigarettes made in each country. He discovered that the tobaccos used in cigarettes in both countries are flu-cured just as they are in the United States. Those differences that were found between the cigarettes were not considered by Dr. Dean as significant in causing lung cancer.

Furthermore, many of those immigrants who died from lung cancer came to South Africa in their twenties, and those who smoked cigarettes before emigrating would have smoked British cigarettes for only a few years, he reasoned.

There were, however, great differences between the tobaccos used in cigarettes manufactured in other European countries before the last war. Consequently, if differences in the tobacco were important, one might expect a considerable difference in the mortality rate from lung cancer between South African men and immigrants from countries other than Great Britain. Yet there is no significant difference, he says.

In fact, the cigarette smoked by the South African resembles the cigarette puffed by an American, and both experience virtually the same incidences of lung cancer which are much less than in Great Britain.

This led Dr. Dean to conclude that those immigrants who died of lung cancer before age 65 were exposed to the cause or causes before they left Britain.

Despite the cheerful news for South African smokers, the study also revealed that while deaths due to lung cancer are considerably lower than in Britain, the death rate from this disease has doubled in South Africa during the ten-year period between 1947-1956. This increase is unlikely to be due to improved diagnostic facilities, but rather, he suggests, it appears to be a genuine increase.

This increase has followed the rapid industrialization and growth of cities within the past 40 years, he noted. Both the country and city dwelling white male South African smoke approximately the same amount of cigarettes. Yet, the increase in mortality is much higher in large cities than in rural areas, he points out.

For instance, the male lung cancer death rate in the city of Durban is higher than the corresponding rate in any other city in South Africa. This applies to both native-born and immigrants. Cigarette consumption in Durban is no higher than elsewhere in South Africa. Yet, during the ten-year period 1947-1956, the death rate from lung cancer among British immigrants in Durban between the ages 45 and 64 was more than five times higher than the rate among the native-born living in rural districts.

Pointing the finger of guilt at air pollution, Dr. Dean says that Durban has a hot humid climate. It has fewer sunny days in the year than the other South African cities. The smoke in Durban per cubic meter compares with districts of London, he says.

Thus he concludes that the higher incirence of lung cancer among residents in South African towns, and in Durban particularly, as compared with the incidence among residents in rural areas, would seem to be strong evidence that atmospheric pollution is an important factor. If so, it is equally likely that the higher incidence among the more recent British immigrants, may again be connected with the air they breathed before emigrating.

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